Response, or credit any overpayment to Deposit Account No. 19-4882.

Please amend the above-identified application as follows and consider the remarks set forth thereafter.

AMENDMENT

IN THE CLAIMS:

Please cancel claims 7 and 37, and amend claims 1, 8, 10-14, 20, 32 and 36 as follows:

1. A rivet assembly, comprising:

a rivet body having a hollow tubular sleeve and an enlarged flattened head suitable for abutting the surface of a work piece; and

a mandrel disposed in said rivet body, the mandrel including an auger having a groove generally longitudinally disposed therein, a cutting portion including at least one cutting edge formed by the groove for incrementally shaving material from the work piece for forming an aperture in the work piece as said mandrel is rotated, and a polishing portion including at least one polishing edge formed by the groove for deburring and polishing the aperture created by said at least one cutting edge,

wherein the aperture formed by the cutting portion and polishing portion receives the hollow tubular sleeve when the rivet body is inserted in the work piece.

8. The rivet assembly as claimed in claim 1, wherein the at least one polishing edge comprises a leading polishing edge and a trailing polishing edge formed on opposite sides of the groove.

10. The rivet assembly as claimed in claim 1, wherein the at least one polishing edge is parallel to a longitudinal axis of the auger.

11. The rivet assembly as claimed in claim 1, wherein the at least one polishing edge

forms an angle with respect a longitudinal axis of the auger.

12. The rivet assembly as claimed in claim 1, wherein the at least one polishing edge is curved.

14. The rivet assembly as claimed in claim 13, wherein the tip includes a point suitable for piercing the work piece, the point extending into an initial contact edge for removing work piece material.

20. A rivet assembly, comprising:

a rivet body having a hollow tubular sleeve and an enlarged flattened head suitable for abutting the surface of a work piece; and

a mandrel disposed in said rivet body, the mandrel including an auger having a groove generally longitudinally disposed therein for forming at least one cutting edge and at least one polishing edge;

wherein the at least one cutting edge is suitable for incrementally shaving material from the work piece as said mandrel is rotated for creating an aperture capable of receiving the hollow tubular sleeve, and the at least one polishing edge is suitable for deburring polishing the aperture created by said at least one cutting edge.

32. The rivet assembly as claimed in claim 31, wherein the tip includes a point suitable for piercing the work piece, the point extending into an initial contact edge for removing work piece material.

36. A rivet assembly, comprising:

a rivet body having a hollow tubular sleeve and an enlarged flattened head suitable for abutting the surface of a work piece; and

a mandrel disposed in said rivet body, the mandrel including an auger having a groove generally longitudinally disposed therein, means for cutting material from the work piece as the mandrel is rotated for forming an aperture, and means for deburring and polishing the aperture created by said cutting means,

wherein the aperture formed by the cutting means and polishing means receives the hollow tubular sleeve when the rivet body is inserted in the work.

Please add the following new claims 41-45

41. The rivet assembly as claimed in claim 1, wherein the auger comprises a tip and shoulder portion, the groove being formed so that it extends longitudinally though the auger from the tip through the shoulder portion.

42. The rivet assembly as claimed in claim 1, wherein the auger has a length (l), the at least one cutting edge forms an angle (α) with respect to the longitudinal axis of the auger and the at least one polishing edge forms an angle (β) with respect to the longitudinal axis of the auger, the values of angle (α) and angle (β) being selected for the material properties of the work piece.

43. The rivet assembly as claimed in claim 14, wherein the point and initial contact edge tap an aperture in the work piece by puncturing and separating the work piece and then scraping material from the work piece for pulling the auger through the work piece so that the auger is self-tapping.

44. The rivet assembly as claimed in claim 15, wherein the thread separates the at least one cutting edge into a plurality of cutting edges helically staged along the groove for pulling the auger through the work piece.